

REMARKS

The Examiner rejected claims 1, 3, and 5 under 35 U.S.C. § 102(b) as being anticipated by Faroudja (U.S. Patent No. 5,428,398); rejected claims 2, 4, and 6 under 35 U.S.C. § 103(a) as being unpatentable over Faroudja in view of Zhu et al (U.S. Patent No. 6,069,664) (hereinafter “Zhu”). Claims 1-6 are pending in the application.

Rejection of Claims 1, 3, and 5 under 35 U.S.C. § 102(b)

The Examiner rejected claims 1, 3, and 5 under 35 U.S.C. § 102(b) as being anticipated by Faroudja. Applicant respectfully traverses.

Faroudja does not describe “up-sampling the slower rate video signal to [any] desired rate” as recited in claims 1, 3, and 5. The Examiner writes that this limitation is met by motion adaptive line-doubler 106, but Applicant disagrees because Faroudja’s line-doubler does not provide “any desired rate” from the slower rate video signal. Instead, as its name implies, Faroudja’s line-doubler merely provides double the rate of the slower rate video signal. (column 5, lines 56-65)

Furthermore, Faroudja does not describe “adaptively filtering the up-sampled slower rate video signal using a human vision model to produce the smooth interpolated video signal.” The Examiner writes that this limitation is met by Faroudja’s non-linear enhancer 110, but Applicant disagrees because Faroudja gives no indication whatsoever that non-linear enhancer 110 is “adaptive” in any way. The only thing that Faroudja describes as being “adaptive” is motion-adaptive line doubler 106, but an adaptive line-doubler and a non-adaptive filter do not satisfy claims 1, 3, and 5 which recite “adaptively filtering the up-sampled slower rate video signal.” Faroudja’s only other mention of the word “adaptive” is in regard to prior art “adaptive comb-filter decoding techniques,” but Faroudja teaches away from such techniques, writing that they “have been only partially successful.” (column 3, lines 13-27)

For both of these reasons, claims 1, 3, and 5 are not anticipated by Faroudja. Therefore, Applicant requests that the rejection of claims 1, 3, and 5 under 35 U.S.C. § 102(b) be withdrawn.

Rejection of Claims 2, 4, and 6 under 35 U.S.C. § 103(a)

The Examiner rejected claims 2, 4, and 6 as being unpatentable over Faroudja in view of Zhu. Applicant respectfully traverses.

Claims 2, 4, and 6 are allowable because they depend from claims 1, 3, and 5 respectively, all of which are patentable for the reasons discussed above. Furthermore, neither Faroudja nor Zhu nor their combination describes “restoring a direct current level for the smooth interpolated video signal.” The Examiner writes that this limitation is met by Zhu’s restoration of the full vertical resolution where at least one of the horizontal scan lines have been repeated or replaced with a constant value, but Applicant maintains, as discussed in the previous office action, that one of ordinary skill in the art would understand Zhu’s restoration of full vertical resolution to be completely different from “restoring a direct current level” of a video signal. A DC restorer is “a circuit used in picture monitors and waveform monitors to clamp one point of the waveform to a fixed DC level.” (NTSC Systems Television Measurements, Section 7, “Glossary of Television Terms,” dated 1999, attached hereto and also available at http://www.tek.com/Measurement/App_Notes/25_7049/eng/section7.pdf.) Zhu teaches no such circuit. Accordingly, claims 2, 4, and 6 are not rendered obvious by a combination of Faroudja and Zhu.

For both of these reasons, Applicant requests that the rejection of claims 2, 4, and 6 under 35 U.S.C. § 103(a) be withdrawn.

Conclusion

In view of the foregoing remarks, allowance of claims 1-6 is urged, and such action and the issuance of this case are requested.

Respectfully submitted,
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